Electrical Code

City of San Diego
2013 Electrical Regulations - Proposed Code Changes

1. UPDATE REFERENCED STANDARDS AND POLICIIES

Text as it appears in LDC

§146.0103 Interpretation of the Electrical Regulations

(a) The language used in this article and in the 2013 California Electrical Code which is made a part of this article by reference, is intended to convey the common and accepted meaning familiar to the electrical industry.

(b) The Building Official, in accordance with Section 129.0104, is authorized to determine the intent and meaning of any provision of this article. The Building Official may utilize other codes, guides, or standards in making such determinations. These may include the National Fire and Life Safety Codes, published by NFPA; Standards for Safety, published by Underwriters Laboratories, Inc. (UL); American National Standards, published by the American National Standards Institute (ANSI); Manufacturing Standards, published by the National Electrical Manufacturers Association (NEMA); National Electrical Safety Code, published by the Institute of Electrical and Electronic Engineers (IEEE); General Order 95 and 128, published by the California Public Utilities Commission; the ~~Electrical Service Guide~~ Electrical Service Standards & Guide, published by San Diego Gas and Electric Company; the San Diego Area Electrical Newsletters, published by the

San Diego Chapter of the International Code Council; and other references that the Building Official may deem appropriate. Determinations shall be made in writing and a record shall be kept that is open to the public.

Reason: The proposed amendment is editorial and updates the name of a publication produced by San Diego Gas and Electric Company that is a part of Sempra Energy.

2. SPACING OF ELECTRICAL RECEPTACLES

Text as it appears in LDC

§146.0202 Alterations, Additions, Relocations and Conversions of Existing Wiring

(a) Additions, extensions, alterations, or removal of existing wiring installations shall be made in compliance with the provisions of this article.

(subsection (1) and (2) no change)

(3) Where the electrical system, including but not limited to interior branch circuit wiring, is upgraded at the ~~owners~~ property owner's initiative ~~and the wall covering is not removed~~, the receptacle spacing requirements of the California Electrical Code, Article 210, Section 52, shall ~~not~~ apply.

(b) Electrical systems in relocated buildings shall comply with the provisions of this article except for the following:

(1) Existing receptacles located in rooms within relocated dwellings shall comply with applicable codes adopted at the time of original construction.

~~Each room in a relocated dwelling shall be provided with receptacles spaced so that no point along the floor line in any wall space is more than 10 feet from a receptacle.~~

(2) ~~Existing receptacles that are more than 5 feet from a grounded surface need not be of the grounded type.~~ The spacing of new receptacles shall comply with Section 210.52 (A) (1) of the California Electrical Code.

(3) Existing receptacle outlets which are not grounded shall comply with Section 406.4 (D) (2) of the California Electrical Code.

Reason: Section 146.0202 (b) (1) is less restrictive than Section 210.52 (A) in Article 210 of the CEC addresses relocated buildings that existed prior to adoption of the requirement, which appears to be the 1959 edition of the National Electrical Code. It is assumed that the electrical installation is conforming to the regulations in effect at the time of original construction and as a result closer spacing may exist for installations under editions of the electrical code consistent with current standards. The proposed amendment is a clarification that the regulation applies to existing receptacles and that new receptacles need to conform to the 2013 California Electrical Code. The CEC intends for outlets to be spaced such to minimize the use of extension cords that can be subject to damage or can overheat if not properly used and intends to minimize trip hazards from extension cords.

Moved buildings enjoy previously conforming rights pursuant to Section 89.108.10.2 adopted by HCD into the CEC if not altered, if they conform to earlier adopted standards and if the building does not become or continue to be a substandard building per Section 17920.3 of the H&S Code (http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=17001-18000&file=17920-17928). The wiring within the building may remain, provided that it has been maintained in a safe condition.

Section 146.0202 (b) 2 is proposed to be deleted for the same reason; additionally Section 406.4 (D) (2) of the CEC addresses replacement of existing receptacles that are not grounded should the person relocating the house choose to replace existing receptacles or be required to do so as a part of the move inspection. The electrical service is required to be grounded at the new location per the current

code because it is now in a new location along with the work to install the conductors between SDG&E and the service. This work will also comply with current regulations.

3. ELECTRIC VEHICLE CHARGING

Text of Section 625.41 (TIA 11-3 Section 625.14) as it will appear in 2016 CEC

625.41 Rating. Electric vehicle supply equipment shall have sufficient rating to supply the load served. Electric vehicle charging loads shall be considered to be continuous loads for the purposes of this article. Where an automatic load management system is used, the maximum electric vehicle supply equipment load on a service or feeder shall be the maximum load permitted by the automatic load management system.

Text of Section 625.44 (TIA 11-2 Section 625.13) as it will appear in 2016 CEC

625.44 Electric Vehicle Supply Equipment Connection. Electric vehicle supply equipment shall be permitted to be cord and plug connected to the premises wiring system in accordance with one of the following:

(A) Electric vehicle supply equipment intended for connection to receptacle outlets rated at 125 volts, single phase, 15 and 20 amperes.

(B) Electric vehicle supply equipment that is rated 250 volts maximum and complies with all of the following:

- (1) It is part of a listed system meeting the requirements of 625.18, 625.19, and 625.29.
- (2) It is intended for connection to receptacle outlets rated no more than 50 amperes.
- (3) It is installed to facilitate any of the following:
  - a. Ready removal for interchange
  - b. Facilitate maintenance and repair
  - c. Repositioning of Portable, movable, or EVSE fastened in place
- (4) Power supply cord length for electric vehicle supply equipment fastened in place is limited to 6 ft (1.8 m).
- (5) Receptacles are located to avoid physical damage to the flexible cord.

All other electric vehicle supply equipment shall be permanently connected to the premises wiring system. The electric vehicle supply equipment shall have no exposed live parts.

Text as it will appear in LDC

146.0106 Modifications to the 2013 California Electrical Code Adopted by the City of San Diego

The following Sections and Subsections of the 2013 California Electrical Code are modified by the City of San Diego:

(a) Article 625, Electric Vehicle Charging system, Section 625.41 Rating; Section 625.44 Electric Vehicle Supply Equipment.

146.0107 Additions to the 2013 California Electrical Code Adopted by the City of San Diego

The following Sections and Subsections are added to the 2013 California Electrical Code by the City of San Diego:

(a) Article 625, Electric Vehicle Charging system, Section 625.41 Rating; Section 625.44 Electric Vehicle Supply Equipment.

§146.0208 Local Modifications and Additions to Section 625.41"Rating" of the California Electrical Code

Section 625.41of the California Electrical Code is adopted with modifications pursuant to Section 146.0107 and additions pursuant 146.0107 of the Land Development Code.

(a) Section 625.41 Rating. Electric vehicle supply equipment shall have sufficient rating to supply the load served. Electric vehicle charging loads shall be considered to be continuous loads for the purposes of this article. Where an automatic load management system is used, the maximum

electric vehicle supply equipment load on a service or feeder shall be the maximum load permitted by the automatic load management system.

§146.0209 Local Modifications and Additions to Section 625.44 "Electric Vehicle Supply Equipment Connection" of the 2013 California Electrical Code

Section 625.44 of the 2013 California Electrical Code is adopted with modifications pursuant to Section 146.0107 and additions pursuant 146.0107 of the Land Development Code.

(a) Electric vehicle supply equipment shall be permitted to be cord and plug connected to the premises wiring system in accordance with one of the following:

(1) Electric vehicle supply equipment intended for connection to receptacle outlets rated at 125 volts, single phase, 15 and 20 amperes.

(2) Electric vehicle supply equipment that is rated 250 volts maximum and complies with all of the following:

(i) It is part of a listed system meeting the requirements of Sections 625.18, 625.19, and 625.29 of the California Electrical Code.

(ii) It is intended for connection to receptacle outlets rated no more than 50 amperes.

(iii) It is installed to facilitate any of the following:

(1) Ready removal for interchange

(2) Facilitate maintenance and repair

(3) Repositioning of Portable, movable, or EVSE fastened in place

(4) Power supply cord length for electric vehicle supply equipment fastened in place is limited to 6 ft (1.8 m).

(5) Receptacles are located to avoid physical damage to the flexible cord.

(b) All other electric vehicle supply equipment shall be permanently connected to the premises wiring system. The electric vehicle supply equipment shall have no exposed live parts.

Reason: The proposed amendments were published by NFPA as a part of Tentative Interim amendment # TIA 11-2 and TIA 11-3 approved in 2011. It is expected that these regulations will be adopted into the next edition of the California electrical Code. These regulations will facilitate the implementation of electrical vehicle charging. Section 625.41 allows load management equipment to be used to regulate power usage to allow additional EV chargers on a circuit without an increase in the circuit capacity. Additionally addresses in more detail chord and plug requirements for connections to the premises wiring.